ecology and environment, inc.

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International Specialists in the Environment

MEMORANDUM

TO: Paul Doherty, EPA/DPO

FROM: Kathleen Wright, E & E/TATM Dave Typed for KW

THRU: Joe Chandler, E & E/TATL JCC

DATE: September 30, 1992

SUBJECT: SPCC Plan Review and SPCC Inspection of the Schaeffer Manufacturing Company, 102 Barton St. St. Louis, Missouri 63104
TDD#: T07-9206-040A
PAN#: EMOZ164CAA
EPA/OSC: Paul Doherty

INTRODUCTION

The Ecology and Environment, Inc., Technical Assistance Team (E & E/TAT) was tasked by the U.S. Environmental Protection Agency (EPA) Emergency Planning and Response (EP&R) Branch, to conduct a Spill Prevention, Control and Countermeasures (SPCC) plan review and facility inspection at the Schaeffer Manufacturing Company, 102 Barton St., St. Louis, Missouri 63104. TATM's Kathleen Wright and Dave Kinroth performed the plan review and the facility inspection.

INSPECTION ACTIVITIES AND REVIEW

On July 29, 1992, TATMs K.Wright and Kinroth met with Schaeffer Manufacturing Co. official John Schields, Plant Manager, to conduct an inspection in compliance with the Oil Pollution Prevention regulations (40 CFR 112) at the Schaeffer Manufacturing Co. at 103 Barton St., St. Louis, Missouri 63104. The SPCC plan review was conducted by K.Wright and Dave Kinroth, the deficiencies are noted below.

1. The SPCC plan was not reviewed by a registered Professional Engineer, to attest that the SPCC plan has been prepared in accordance with good engineering practices [112.3(d)].

2. SPCC plan did not have the full approval of management at a level with authority to commit the necessary resources [112.7].

3. Spill History was not addressed [112.7(a)].

4. The SPCC plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure [112.7(b)].

5. Secondary containment was not addressed [122.7(c)].

6. Facility drainage was not addressed [112.7(e)(1)(i-v)].

7. The bulk storage tanks were not addressed [112.7(e)(2)(i-xi)].

8. Facility transfer operations were not addressed [112.7(e)(3)(i-v)].

9. Facility loading/unloading operations were not addressed [112.7(e)(4)(i-iv)].

10. Tank batteries containment area drain valves, rainwater inspections before discharge, field drainage ditches and dikes inspected, tank compatibility with material stored, visual inspections of tanks, new and old tank batteries kept up to date, valves and pipelines inspected regularly, and flowline maintenance to prevent spills, were not addressed in the SPCC plan [112.7(e)(5)(ii-iv)].

11. Inspections and records were not addressed [112.7(e)(8)].

12. Security was not addressed [112.7(e)(9)(i-v)].

13. Personnel Training was not addressed [112.3(e)(10)(i-iii)].

The SPCC facility inspection was conducted by K.Wright and Dave Kinroth and the deficiencies are noted below.

1. Secondary containment was not addressed for either the blending tanks inside or the storage tanks outside [112.7(c)].

2. Tank testing for structural integrity was not addressed [112.7(e)(2)(viii)].

3. Warning signs for vehicular traffic present were not addressed [112.7(e)(3)(v)].

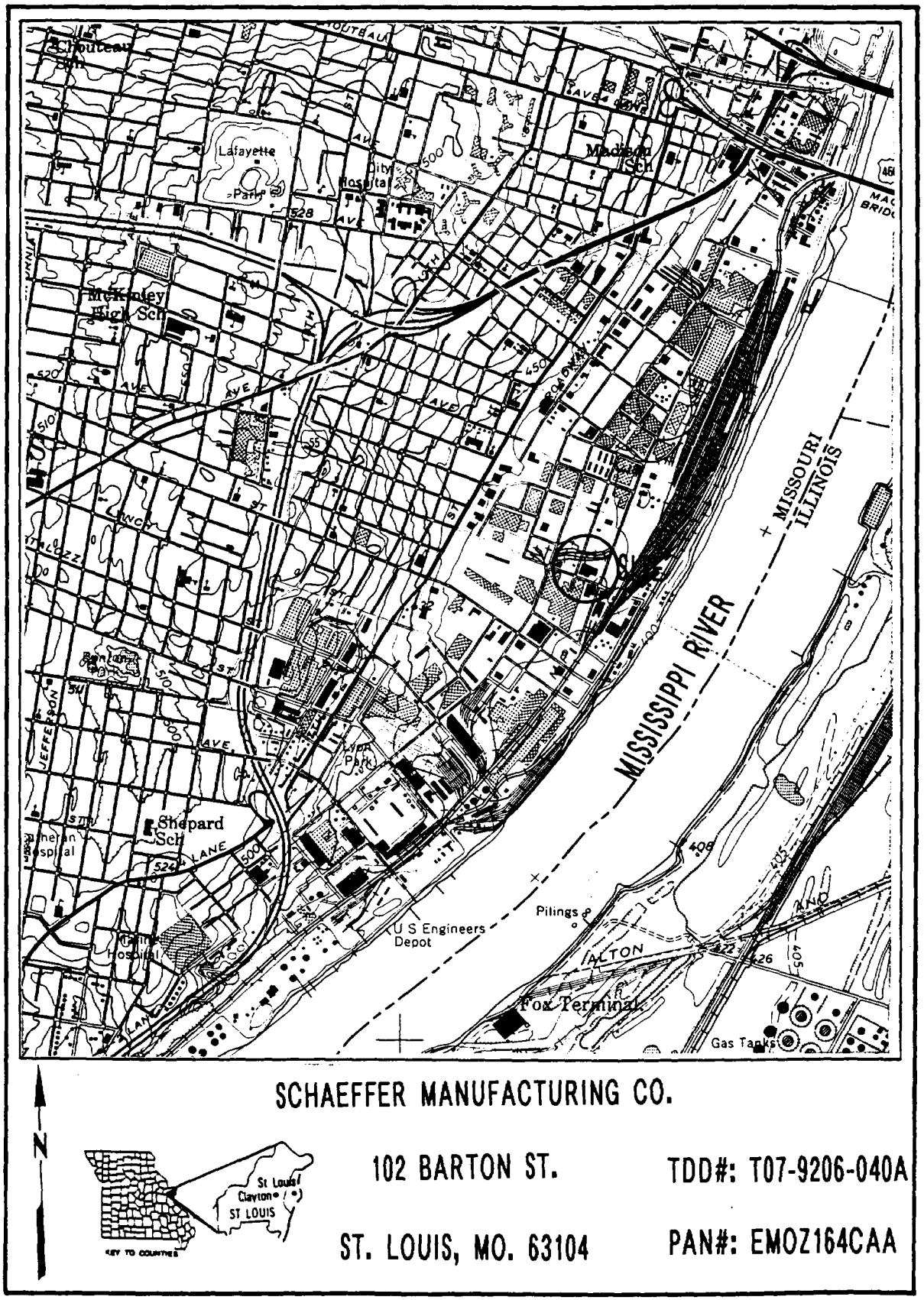
4. Secondary containment for vehicles was not addressed [112.7(e)(4)(iv)].

5. Warning/barrier system for vehicles was not addressed [112.7(e)(4)(iii)].

6. Records kept for 3 years were not addressed [112.7(e)(8)].

ATTACHMENTS

Site Location Map
SPCC Facility Inspection Form
SPCC Plan Review Form



SCHAEFFER MANUFACTURING CO.

102 BARTON ST.

ST. LOUIS, MO. 63104

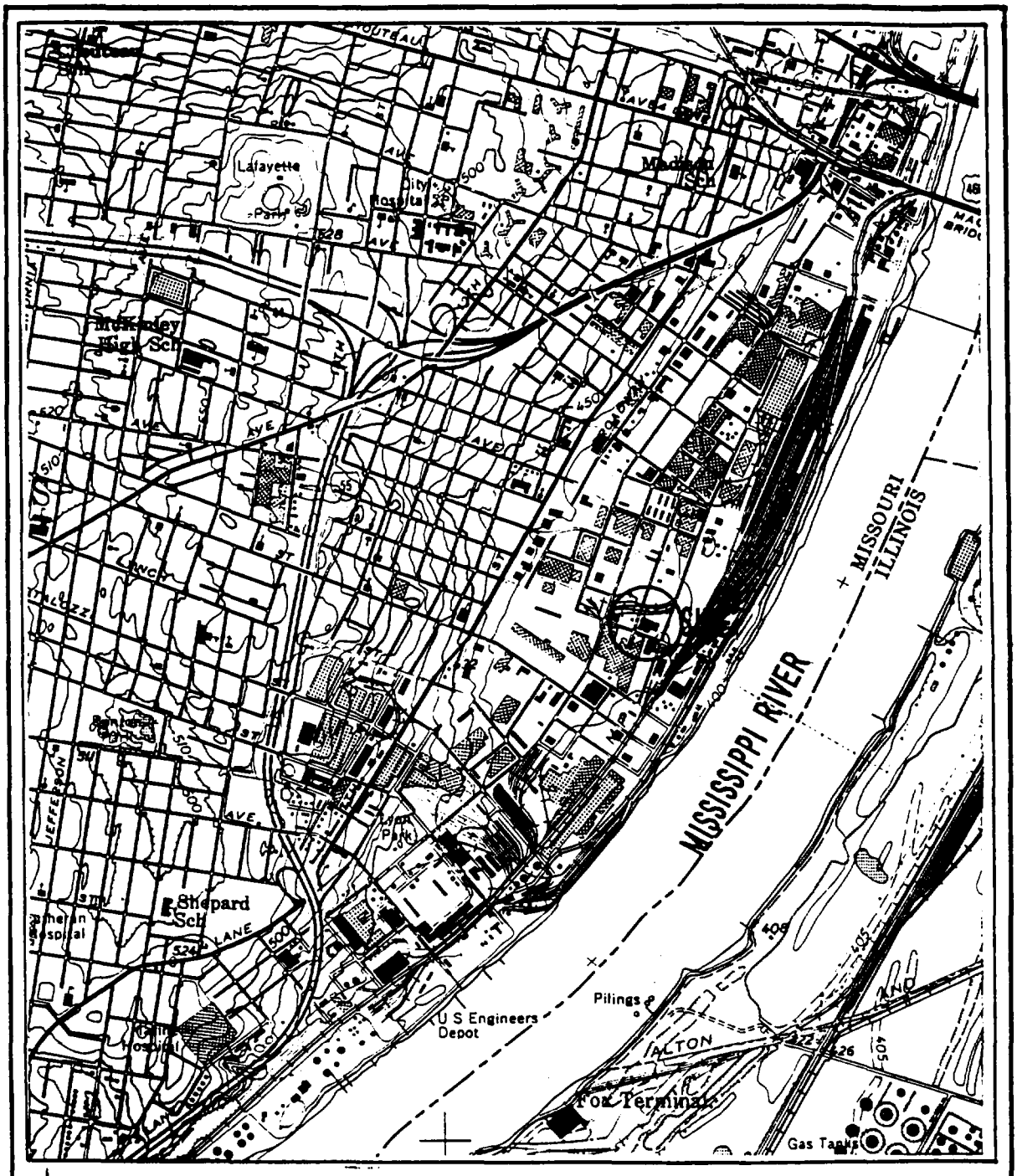
TDD#: T07-9206-040A

PAN#: EMOZ164CAA

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER



SCHAEFFER MANUFACTURING CO.

102 BARTON ST.

ST. LOUIS, MO. 63104

TDD#: T07-9206-040A

PAN#: EMOZ164CAA

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

SPCC Plan Review Form (9/90)

Facility Name: Schaeffer Manufacturing Co.

Reviewed by: K. Wright & D. Kinroth Date of Review: 7/29/92

Indicate whether item is adequately addressed (+), inadequately addressed (-), not addressed (0) or is not applicable (NA).

— PE Certification [112.3(d)] in process of doing

— Management Approval [112.7] they have approved but no signature plan.

— Spill History [112.7(a)]

— Spill Prediction [112.7(b)]

— Secondary Containment [112.7(c)]

+ Contingency Plan [112.7(d)]

Facility Drainage [112.7(e)(1)(i-v)]

+ Drainage retained by valves (i)
— Valves are manual; open and close - not flapper type (ii)
— Drainage from undiked areas flows into catchment basins. (iii)
— Return system, if necessary (iv)
— Lift stations used as necessary (v)

Bulk Storage Tanks [112.7(e)(2)(i-xi)]

— Tanks are compatible with material stored (i)
— Secondary containment holds largest tank + 10% (ii)
— Rainwater empties into waterway (iii)
— Buried tanks protected against corrosion (iv)
— Use of partially buried tanks (v)
— Regular testing of aboveground tanks (vi)
— Use of internal coils (vii)
— Tanks are kept up-to-date: (viii)
  — High level alarms (A)
  — High level pump cut-off (B)
  — Audible or code warning (C)
  — Level sensing devices tested regularly (D)
  — Direct readout of devices (E)

___ Site disposal facilities inspected regularly (NPDES)(ix)
___ Correction of observed oil leaks (x)
___ Portable storage tanks properly positioned (xi)

Facility Transfer Operations [112.7(e)(3)(i-v)]

___ Buried piping protectively wrapped, cathodically protected (i)
___ Out of service pipes are capped (ii)
___ Pipe supports used where necessary (iii)
___ Inspection of aboveground pipes (iv)
___ Warning signs for trucks (clearance, etc.) (v)

Facility Loading/Unloading Operations [112.7(e)(4)(i-iv)]

___ Follows DOT procedures (i)
___ System holds maximum capacity of largest compartment in truck (ii)
___ Vehicles are examined before leaving facility (iii)
___ Bottom drain of vehicle examined before leaving (iv)

Oil Production Facilities [112.7(e)(5)(ii-iv)]

___ Tank batteries containment area drain valves are closed, rainwater is inspected prior to discharge (ii)(A)
___ Field drainage ditches and dikes inspected (ii)(B)
___ Tanks are compatible with material stored (iii)(A)
___ Secondary containment used as feasible (iii)(B)
___ Visual inspection of tanks containing oil (iii)(C)
___ New and old tank batteries kept up to date (iii)(D)
___ Valves and pipelines inspected regularly (iv)(A)
___ Salt water disposal facilities inspected regularly (iv)(B)
___ Flowline maintenance to prevent spills (iv)(C)

Oil Drilling and Workover Facilities [112.7(e)(6)(i-iii)]

N/A Proper positioning of drilling equipment (i)
N/A Catchment basins or diversion structures

used as needed (ii)
N/A Blow-out prevention and well control (iii)

Oil Drilling, Production and Workover Facilities
[112.7(e)(7)(ii-xvii)]

N/A

___ Oil drainage collection (ii)
___ Adequate sumps and drains (iii)
___ Separators equipped with high level alarm (iv)
___ Surge tanks " " " " " (v)
___ Pressure tanks equipped with high and low level alarms (vi)
___ Corrosion protection for tanks (vii)
___ Written procedure pollution control systems (viii)
___ Equipment testing conducted (ix)
___ Description of well valve controls (x)
___ BOP assembly and well control system (xi)
___ Well control measures for emergency situations (xii)
___ Written instructions for contractors/subcontractors (xiii)
___ Manifolds equipped with check valves (xiv)
___ Pressure sensing devices for necessary flowlines (xv)
___ Pipelines protected from corrosion (xvi)
___ Sub-marine pipelines inspected regularly (xvii)

Inspection and Records [112.7(e)(8)]
plant Manager keeps them
✓ Should be kept for three years

Security [112.7(e)(9)(i-v)]

— Fencing (i)
— Master flow/drain valves locked in closed position (ii)
— Starter control locked in off position (iii)
— Pipelines not in use drained and blank-flanged (iv)
— Facility well-lit (v)

Personnel Training [112.3(e)(10)(i-iii)]

— Personnel properly instructed (i)
+ One person designated for spill prevention (ii)
✓ Owner schedules training (iii)

SPCC FACILITY INSPECTION FORM (1/91)

Case Number: _____

Inspection date: July 29, 1992 Inspector(s): Kathleen Wright + Dave Kinroth

Facility name and location: Schaeffers Manufacturing Co.
102 Barton St. St. Louis, Mo. 63104

Facility owner, address and telephone: John Sheilds
102 Barton St. St. Louis, Mo. 63104

Facility operator, address and telephone: Same as owner

Can a release impact a waterway - describe (give name of waterway): Mississippi River less than 1/2 mile

Facility storage:

# of tanks	Capacity	Material Stored
Multiple	33,000 gal.	lubricating oils
Multiple	46,000 gal.	raw product
Multiple Multiple	75,000 gal 70,000 gal	oil + additives grease

Is the facility subject to 40 CFR 112? yes

Does the facility have an SPCC Plan? [112.3] yes

Is the plan certified by a Professional Engineer? no

Name of P.E.:

Registration #:

Facility History - have there been spills or prior inspections?
The city makes regular visits as well as the fire department. No spills reported.

Inspection Purpose (what initiated the inspection)
Random

Secondary Containment

Containment volume [112.7(c) or 112.7(e)(2)(ii)]:
There is no secondary containment for any of the tanks.
Does a contingency plan exist: Yes

Describe drainage control [112.7(e)(1)(i-v)].
Sorbent pads and material are used to block drains.

Is discharged rainwater inspected? No.

Storage Tanks

Compatible construction [112.7(e)(2)(i)]: Yes

Corrosion protection for buried tanks [112.7(e)(2)(iv)]: N/A

Partially buried tanks present (should be corrosion protected) [112.7(e)(2)(v)]: N/A

Tanks tested for structural integrity [112.7(e)(2)(vi)]:
Not since installation.
Fail-safe engineering for tanks (should have direct read-out gauges at a minimum) [112.7(e)(2)(viii)].
Tape measure type headout for blending tanks and bulk storage tanks.

Facility NPDES permit: No.

Facility Transfer Operations

Buried piping corrosion protected [112.7(e)(3)(i)]: N/A

Out-of-service pipes capped/blank flanged [112.7(e)(3)(ii)]:
Plugged & tagged (visual refference).
Pipe supports used (indicate if needed) [112.7(e)(3)(iii)]: Yes.

Inspection procedures for valves and pipes [112.7(e)(3)(iv)].
Visual on a daily basis
Are warning signs for vehicular traffic present [112.7(e)(3)(v)]? No.

Facility Loading/Unloading Operations

Loading/unloading procedures meet DOT regulations [112.7(e)(4)(i)]:
Supervised by people being present.

Secondary containment for vehicles adequate [112.7(e)(4)(ii)]:
Train uses drip pans,
Trucks use drip pans also.

Warning/barrier system for vehicles [112.7(e)(4)(iii)]:
People

Vehicles examined before leaving [112.7(e)(4)(iv)]:
Yes - visual & paperwork done.

Inspections/recordkeeping

Facility inspection procedures:
Visually on a daily basis.

Length of time records kept for (must be 3 years) [112.7(e)(8)]:
If problem make note & will get addressed & fixed.

Site Security

Fencing [112.7(e)(9)(i)]: Yes

Flow valves locked [112.7(e)(9)(ii)]: Chained & locked

Starter controls locked [112.7(e)(9)(iii)]: Inside & locked

Lights [112.7(e)(9)(v)]: Yes

List spill control equipment at facility:

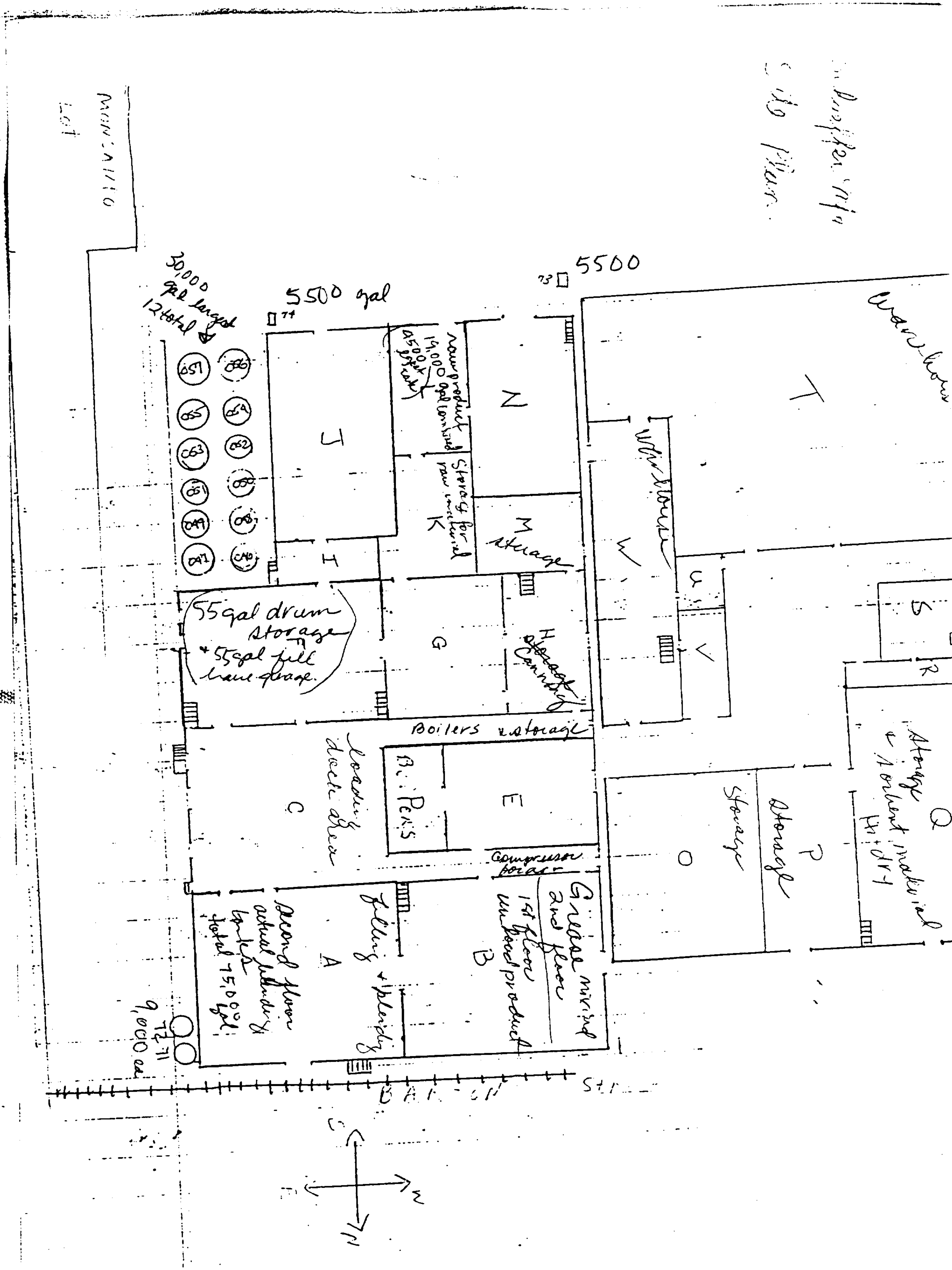
- Sorbent materials
- drip pans.

Additional Comments:
(Discuss facility appearance, general comments and inspection findings.)

List of attachments
Facility Maps

Kathleen Wright
Signature of Inspector

July 29, 1992
Date



30,000 gal largest
12 total
5500 gal
5500
raw product 19,000 gal combined
Storage for raw material
N
J
K
M storage
I
55gal drum storage + 55gal fill
G
H
Boilers & storage
loading dock area
C
E
Compressor room
filling & blending
A
second floor actual blending & tanks total 7500 gal
Grease mixing 2nd floor 1st floor unload product
B
9,000 ea
71
72
W
U
V
T
S
R
O
Storage
P
Storage
Q
Storage & solvent material
Warehouse